

PARENTAL ATTENDANCE AND THE POST-HOSPITALIZATION
BEHAVIOR OF CHILDREN

A THESIS
SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY

COLLEGE OF NURSING

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JULY 1976

The Graduate School
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July 20 1976

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entitled PARENTAL ATTENDANCE AND THE POST-HOSPITALI-
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TABLE OF CONTENTS

	Page
TABLE OF CONTENTS	iii
LIST OF TABLES	v
Chapter	
1. INTRODUCTION	1
Introduction	1
Statement of the Problem	2
Purposes	3
Background and Significance	3
Hypothesis	6
Definition of Terms	6
Limitations	7
Delimitations	7
Assumptions	7
Summary	8
2. REVIEW OF LITERATURE	9
Introduction	9
Review	9
Summary	22
3. PROCEDURE FOR COLLECTION AND TREATMENT OF	
DATA	23
Introduction	23
Setting	24
Population	24
Permission to do Study	25
Description of Tool	25
Methodology	27
Treatment of Data	28
Summary	29

TABLE OF CONTENTS

Chapter	Page
4. ANALYSIS OF DATA	30
Introduction	30
Description of Sample	30
Analysis of Data	31
Summary	41
5. SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS	42
Introduction	42
Summary	42
Conclusions	44
Implications	47
Recommendations	50
REFERENCES CITED	51
BIBLIOGRAPHY	53

LIST OF TABLES

TABLE	PAGE
1. AGES OF SUBJECTS	31
2. FREQUENCY OF PARENT RESPONSES TO QUESTIONNAIRE ITEMS BY DEGREE OF CHANGE	33
3. RESULTS OF FISHER EXACT PROBABILITY TESTS	38
4. RESPONSES SHOWING ADVERSE REACTIONS	41

CHAPTER I

INTRODUCTION

Introduction

Until recently, it was customary in most hospitals in the United States and Great Britain to limit family visits with hospitalized children to set visiting hours, i. e., one hour in the afternoon and one hour in the evening. The reasons for this were that hospital personnel believed that routine would be interrupted by lengthier visits and children were more docile during administration of medications and treatments when parents were not present. In the late nineteen-fifties, however, it was discovered that the apparently docile behavior of the children was in actuality a mourning state which was a part of the emotional process called separation anxiety. Adverse behavior changes which were observed in these children after their return home from the hospital were attributed to the emotional trauma caused by separation from their mothers. Because of these findings, a gradual change has come about in the last ten years leading to unlimited visiting hours in many hospitals. Parents are permitted to assist in the bedside care of their children with excellent results.

At a three hundred bed general hospital in a South-western city of about 120,000 population, a policy was adopted whereby close family members were required to remain with all hospitalized children through the age of twelve both day and night. A second, smaller general hospital, located directly across the street from the larger one, soon adopted a similar policy. Large, comfortable reclining chairs were provided in each room which supplied satisfactory accommodations for adults without requiring excessive use of floor space. Meals for parents were provided on a regular basis and both children and parents were treated with courtesy and respect by hospital personnel. Whenever possible, parents were encouraged to assist in providing bedside care for their children as well as to comfort and amuse them. The result of this policy was that parents were eager to remain with their children and separation anxiety was no longer a problem. With the process of separation anxiety no longer operating, it was possible to study other causes of post-hospitalization emotional disturbance more easily.

Statement of the Problem

The problem of this study was to determine whether or not hospitalization for tonsillectomy can cause adverse post-hospitalization psychological effects in children of one through twelve years of age who are accompanied by a close family member.

Purpose

The purpose of this study will be to establish:

1. Duration of attendance.
2. Relationship of the close family member to the child.
3. Identification of post-hospitalization behaviors.
4. Evaluation of post-hospitalization behaviors.

Background and Significance

The adverse effects of hospitalization and surgery on the mental health of children have been well recognized for many years. Levy (1945) noted that many of the emotionally disturbed children who were brought to him for evaluation and treatment had previously been subjected to hospitalization and surgery. He concluded that the prevention of postoperative fears could be accomplished by (1) postponement of the operation, if possible, to at least the age of three years; (2) an explanation to the child of what is to take place; (3) contact with the mother before and after the operation; and (4) pre-paratory sedative and anesthetic in the child's hospital room to spare the child the experience of seeing instruments and the operating room and riding through the corridors.

Jessner et al. (1952) found that the four main foci of anxiety in children who underwent tonsillectomy were: separation from the parents and exposure to the strange hospital surroundings, the anticipation of being anesthetized, the

operation itself, and the fear of needles. Anxiety about hospitalization and separation was found to be greatest in children below the age of five. The older children were more concerned about the operation and the anesthetic. It was found that the majority of the children undergoing tonsillectomy seemed to be able to master and integrate the experience without any serious emotional consequences. In some children, however, striking changes in behavior occurred, often accompanied by the appearance of symptoms which tended to persist for months and even years after the operation. On the other hand, there were a few cases cited where definite improvement in emotional adjustment seemed to occur following the operation. Jackson et al. (1952) reported similar findings in studying 140 children before and after tonsillectomy.

With the work of Robertson (1958) and Bowlby (1961) of the Tavistock Child Development Research Unit, London, England, a great change in attitude came about concerning hospitalization of children and disturbed personality development. They pointed out that when a child between the ages of six months and six years is separated from his mother, a process of childhood mourning occurs which they labeled separation anxiety. They felt that it was not the hospitalization or the surgery which caused the disturbed post-hospitalization behavior; it was the separation anxiety. This was easily remedied by allowing the mother and / or father to remain with the child

at all times while he was in the hospital. A number of hospitals began to experiment with various ways of accomplishing this aim (Schaffer 1967), (Morgan 1967).

Fagin (1966), in studying very young children who were hospitalized for long periods of time, found that those who were attended by their mothers had very few emotional difficulties upon their return home while those who were not attended by their mothers showed definite emotional effects. However, other causes of emotional trauma were postulated before separation anxiety was defined. Older children, for whom separation anxiety is not a problem, do have emotional disturbances subsequent to hospitalization for surgery (Jessner 1952). With parents present at all times, separation anxiety could be disregarded and other causes of emotional disturbance following hospitalization and surgery could be more easily investigated.

The purpose of this study was to determine whether a significant number of children showed adverse psychological effects following short term hospitalization for surgery even though a close family member remained with them at all times during the experience. If these effects were proven to occur, then additional research would be necessary to discover the causes, eventually leading to changes in hospital policies and procedures.

This study was important to nursing for the reason that direct patient care is the major responsibility of nurses in the hospital. If it can be shown that hospitalization for surgery,

as presently implemented, can cause adverse psychological effects in children, then members of the nursing profession will be motivated to initiate new methods of nursing care in order to alleviate the problem.

Hypothesis

Adverse psychological effects of hospitalization for tonsillectomy other than those precipitated by separation anxiety occur in children of one through twelve years of age.

Definition of Terms

For the purpose of this study, the following terms were defined:

1. Close family member--a parent, grandparent, or other individual who has a warm, close relationship with the patient.
2. Regression--a return to an earlier developmental state, such as recurrence of bed-wetting, baby talk, thumb-sucking or whining.
3. Separation anxiety--an emotional process which is a form of mourning initiated in young children by separation from mothers.
4. Adverse psychological effects--changes in the self-concept of an individual as the result of a frightening experience which leads him to feel helpless and inadequate to cope with his life situation.

Limitations

For the purpose of this study, the following limitations apply:

1. There is no control over length of hospitalization.
2. There is no control over the relationship between the child and the family member staying with him.
3. The sample population is limited to primarily middle-class individuals as the hospitals used in the study serve only private patients.
4. The child may have a history of psychiatric disorders not noted on the chart.

Delimitations

This study was limited to:

1. Patients of one through twelve years of age.
2. Patients who underwent tonsillectomy at the hospitals used in this study between December 15, 1975 and March 15, 1976.
3. Patients with no known emotional problems or history of mental retardation.
4. Patients with an uncomplicated course of hospitalization.

Assumptions

For the purpose of this study it was assumed that:

1. Hospitalization and surgery are traumatic experiences.

2. Adverse symptoms will show themselves shortly after the precipitating cause has occurred.

3. Responses given by parents are honest.

Summary

Two general hospitals, located in a Southwestern city of 120,000 population, whose policy required that all children through the age of twelve be accompanied by a close family member at all times, provided the opportunity to determine whether brief hospitalization for relatively minor surgery could cause adverse behavior in children during the post-hospitalization period when the factor of separation anxiety was eliminated.

The second chapter in this thesis contains an exhaustive review of the literature; discussing, in chronological order, the studies and reports concerning the causes of adverse behavior in children during the post-hospitalization period. The third chapter in this thesis discusses the questionnaire used to obtain the data and presents the methodology utilized in the study. The fourth chapter of this thesis presents the results and interpretations of the findings and shows how the statistical test chosen was utilized in the study.

The fifth chapter of this thesis summarizes the evidence discovered in the study and discusses conclusions gained from them. Recommendations for utilization of the implications of the study both in nursing service and nursing education are made. Recommendations for further study will also be given.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The adverse effects of hospitalization and surgery on the mental health of children have been well recognized for many years. Numerous studies have been done and numerous articles have been written about the causes of these adverse behavior changes and to recommend appropriate remedies. They are described here in chronological order.

Review

One of the first individuals to document adverse effects of surgery in children was Levy (1945) who found that many of the emotionally disturbed children who were brought to him for evaluation and treatment had been subjected previously to hospitalization for surgery--primarily tonsillectomy. In evaluating 124 children who were 11 months to 139 months of age at the time of surgery, he noted that the largest percentage of postoperative symptoms occurred in the one-year old children, those in the group aged 12 to 23 months. Two-year old children also exhibited a fairly large number of adverse

reactions. Starting with the three-year old group, however, there was a definite drop in the number of adverse reactions. Levy (1945) also found that among children under three years of age, besides higher frequency, there was greater intensity of response than in the older children. His explanation for these findings was that an operation represents an experience of pain performed by strange persons in a strange place after forcible separation from the familiar home and the protecting mother. A full pattern of emotional response to this situation would lead to fear of all strangers, of all places outside the home and of all possible hurts and to desperate clinging to the mother. This pattern of response occurred in a number of his patients who had surgery below the age of three. He found that older children can understand an explanation of what the operation is all about and can lessen their anxiety by playing it out with toys and other children, taking both the role of the patient and the surgeon. He concluded that the prevention of postoperative fears could be accomplished by postponement of the operation, if possible, to at least the age of three years; an explanation to the child of what is to take place; contact with the mother before and after the operation; and preparatory sedative and anesthesia in the child's hospital room (Levy 1945).

Jessner et al. (1952), in studying 143 children who underwent tonsillectomy and adenoidectomy at the Massachusetts

Eye and Ear Infirmary, observed that preparation involves more than simply imparting information to the child. The parents' own feelings can color the presentation of the facts so that the child's apprehensiveness might be heightened rather than diminished. While intellectual preparedness helps maintain a proper reality orientation, it is the emotional preparedness, i. e., the extent to which the child has been able to master his anxiety, that affects the final outcome.

In evaluating the hospital experience for children, Jessner et al. (1952) found that one of the main sources of anxiety was separation from the parents. They also found that separation could have different meanings. For some children separation was experienced mainly as loneliness, while for others it was a need for protection. For a third group, separation apparently represented complete abandonment.

The emotional reactions of the children to the anesthesia experience varied. For a good many children, it represented the threat of death. Fear of loss of control during anesthesia seemed to be the chief concern of the older children. On the other hand, some children were reassured by the thought that they were to be anesthetized.

The meaning of the operation to the children varied. For many, it had the meaning of mutilation or castration. Other children expected that the operation might change them from a boy to a girl or vice versa. Another meaning of the

operation was giving birth. While this was found predominately in girls, it was also found in a few of the younger boys.

Jessner et al.(1952) found that the four main foci of anxiety were: the separation from the parents and the exposure to the strange hospital surroundings; the anticipation of the anesthesia; the operation itself; and the fear of needles. Frequently the child had more than one focus of anxiety. Anxiety about hospitalization and separation was found to be greatest in children below the age of five, whereas the older children were more concerned about the operation and the anesthetic. It was found that the majority of the children undergoing tonsillectomy seemed to be able to master and integrate the experience without any serious emotional consequences. In some children, however, striking changes in behavior occurred, often accompanied by the appearance of symptoms which tended to persist for months and even years after the operation. Jackson et al.(1952), in studying 140 children before and after tonsillectomy, reported similar findings.

Prugh et al.(1953), in a well-documented study involving two groups, each consisting of one hundred children between the ages of two years and twelve years who were hospitalized for short periods, found that children under four years of age and children who had relatively unsatisfying relationships with their parents, who had undergone very severe stress in the hospital, and who had shown the greatest difficulty in adapting to the ward milieu were those who tended to show

persistant signs of emotional disturbance at three months following hospitalization. The most common manifestation of disturbance at any age level was overt anxiety. Anxiety over separation from parents appeared most intensely in younger children, but arose also in older children. Specific fears of strangers, the dark, animals, doctors, needles, etc. were more frequent in children from four to six years of age. In addition to anxiety and specific fears, children from four to six showed hyperactivity and disturbances in feeding and sleeping behavior. Manifestations seen in older children included withdrawal and fantasy formation, denial of illness, and at times, heightened dependence together with some anxiety and occasional feeding and sleeping disturbances.

Eckenhoff (1953) sent questionnaires over a period of eighteen months to 1008 patients two months after surgery. The questions concerned changes since surgery in the following areas: bedwetting, night terrors, temper tantrums, fear of meeting strangers, fear of having the face covered, and fear of new odors. Parents were also requested to detail how they prepared their child for hospitalization and surgery. Replies were received from 612 patients or sixty-one percent of the total. Seventeen percent of the replies indicated a personality alteration which Eckenhoff (1953) felt might be traced to anesthesia and / or the hospital experience. Thirty-two percent of the changes reported were in the form of night terrors, appearing either for the first time or becoming worse after

hospitalization. Temper tantrums comprised twenty percent of the changes; fear phenomena (afraid of darkness, unaccustomed odors, strangers, or of having face covered) constituted twenty-three percent and the remaining nineteen percent pertained to bed-wetting. The incidence of personality change was highest in the youngest children. It was found that with unsatisfactory anesthesia inductions (crying, struggling, vomiting, and early obstruction), the probability of undesirable personality change was greater in young children than if the induction was smooth. Vinyl ether anesthesia was associated with a higher incidence of bed-wetting and appearance of undesirable personality changes. In order to prevent unsatisfactory anesthesia inductions, it was noted that careful attention to type and timing of pre-anesthetic medication could materially reduce undesirable sequelae. It was also suggested that the better the child's home preparation for his experience of hospitalization for surgery, the lower the incidence of post-operative personality changes.

James (1960) studied a series of sixty children under ten years of age who were hospitalized for surgery. In all cases, a complete physical recovery was made and no child was in the hospital for more than three weeks. Types of surgery were as follows: ear, nose, and throat--34, squint and other eye operations--5, appendectomy--10, hernia--4, and miscellaneous--7. No case involving cranial surgery was included. The children were followed up for a minimum of six months and

behavior reactions were assessed. These varied from a transient disturbance, such as night terrors, lasting only a week or so, to severe and prolonged reactions which disturbed the child's personality. Seventy percent showed no abnormal behavior reactions and only three percent showed a severe reaction, i. e., one lasting more than three months. Of the twenty children who were under the age of five, eleven had a reaction. Of the forty children who were five or over, seven had a reaction.

With the work of Robertson (1958) and Bowlby (1961), a great change in attitude came about concerning separation of children from their parents during hospitalization. They pointed out that there was a causal relationship between loss of maternal care in the early years and disturbed personality development. Many common deviations seemed to follow an experience of this kind from delinquent character formation to a personality prone to anxiety states and depressive illness. They found that loss of the mother figure during the period between six months and six years of age leads to a process of childhood mourning which they labeled separation anxiety. This process has three phases: protest, in which with tears and anger the child demands that his mother come back and seems hopeful that he will succeed in getting her; despair, in which he becomes quieter, but remains preoccupied as much as ever with his absent mother and still yearns for her return; and

denial, in which he seems to forget his mother so that when she comes to take him home, he remains uninterested in her and may seem not to even recognize her. In each of these phases, which often last several days each, the child is prone to tantrums and episodes of destructive behavior, often of a violent kind. The child's behavior on return home depends on the phase reached during the period of separation. Robertson (1958) and Bowlby (1961) concluded that it was not the hospitalization or the surgery which caused disturbed post-hospitalization behavior; it was the separation anxiety. This was easily remedied by allowing the mother and / or father to remain with the child at all times while he was in the hospital and a number of hospitals began to experiment with various ways of accomplishing this aim.

Mahaffey (1965) found that parents were better able to provide physical and emotional support for their children during hospitalization and surgery if they were properly prepared for the experience by nursing personnel during the admission procedure.

Fagin (1966), in a well-documented nursing study, worked with sixty children of eighteen to thirty-six months of age. Half of the mothers stayed in the hospital rooms with their children and half visited their children daily during regular visiting hours. It was found that the children who were separated from their mothers during hospitalization regressed

in regard to emotional dependence, appetite, food finickiness, resistance to going to bed, and bed-wetting. However, the children who were accompanied by their mothers, with few exceptions, showed no adverse effects in behavior due to hospitalization.

Aufhauser (1967) discussed the results of an experiment in visiting policy in a children's surgical ward at New York Hospital-Cornell Medical Center. A parent participation plan which allowed parents to be with their children from 10:30 a.m. to 6:30 p.m. instead of the previous set visiting hours of 2:00 p.m. to 6:00 p.m. was instituted. The parents of eleven children took advantage of the plan and found it to be very satisfactory. The nursing personnel and physicians had some difficulty in learning to function efficiently while being constantly watched. They soon adjusted to the new situation, however, and found that the children were more cooperative when attended by their parents.

Morgan (1967) reported the changes experienced in the children's ward of an English hospital which progressed from a policy of no visiting at all by parents to allowing mothers to remain with their children both day and night. She noted that the mother is probably more helpful at night than during the day, particularly with a seriously ill child, since there are fewer nurses on duty during that time. It was also found that mothers are invaluable for watching intravenous transfusions and obtaining stool and urine specimens.

Schulman et al. (1967) in studying the effect of the mother's presence during anesthesia induction, observed thirty-two children between the ages of two and six years who were admitted for tonsillectomies. Half of the children were randomly assigned to one treatment (accompanied by mother) and half to the other treatment (separated from mother). The groups were balanced for age and sex. Mood during induction and changes in behavior following hospitalization were investigated. The analysis of mood provided support for the hypothesis that upset during induction is mitigated by the mother's presence. The mothers who were present were very cooperative and were uniformly enthusiastic about the experience. Even those who were relatively anxious did not appear to increase the distress of their children.

Englehardt (1969) described the care-by-patient wing of the University of Kentucky Medical Center in Lexington, Kentucky, in which mother and child check into a private room and bath. The mother makes the beds, straightens the room, serves the meals, and generally takes care of her child. She is also taught the nursing skills required for her child both during and after his hospital stay and handles them alone once she has demonstrated competence. The parent is given a diary each evening which lists the medication and medical appointment schedule for the child for the next twenty-four hours. The parent is expected to record the time she actually gives the medication, note the child's temperature, and detail

anything else of medical importance. She also collects the twenty-four hour urine specimens. The benefits of allowing the parent to assume care of the child are: the total hospitalization cost is lowered as much as \$55.00 per day; hospital beds are released for patients in more critical condition; and the child remains under the protection of his mother or father during a time when his emotional security is being severely shaken.

Vernon et al. (1965) in their comprehensive review of the literature of the psychological responses of children to hospitalization and illness, indicated four commonly cited variables causing psychological upset: separation from parents, unfamiliarity of the hospital setting, age, and prehospitalization personality. They concluded that unfamiliarity and separation could be implicated in the etiology of upsets during hospitalization. Children between the ages of six months and three years, eleven months appeared to be particularly affected. The role of the fourth variable, prehospitalization personality, was judged not proven, though there was some evidence that poor adjustment prior to hospitalization was likely to result in more frequent and more severe upsets during both hospitalization and the post-hospitalization period.

Vernon et al. (1966) in their investigation of changes in children's behavior after hospitalization, were concerned with six factors: general anxiety and regression, separation

anxiety, anxiety about sleep, eating disturbances, aggression toward authority, and apathy-withdrawal. They found significant differences for three variables: age, duration of hospitalization, and socio-economic status. Parents of 387 children responded to their well-validated questionnaire. Their responses showed that: (1) children between the ages of six months and three years, eleven months were more adversely affected by hospitalization and illness than either younger or older children and that it appeared to be caused by separation anxiety; (2) children hospitalized for approximately two to three weeks showed more pronounced changes in the direction of upset than children hospitalized for shorter periods; (3) children of lower socio-economic status seemed to benefit psychologically from their experience while children of middle and higher socio-economic status remained relatively unchanged. The last outcome suggested that the children from poor families experienced certain aspects of hospitalization as improvements over their home situation, i. e., more food, toys and recreational facilities. It is also possible that these children, because of previous life experiences, were more independent or were more used to experiences of deprivation and for these reasons, were better able to tolerate stress. Four other variables studied--sex, reason for hospitalization, degree of pain experienced, and birth order--were found to be unrelated to any type of response. They concluded that in

general the combination of illness and hospitalization is a psychologically upsetting experience for children.

Skipper and Leonard (1968), in studying eighty children, point out that one of the most common causes of hospitalization and surgery in pre-teenage children is tonsillectomy. It often represents the child's first admission to a hospital, his first separation from the security of his home and parents, and his first real experience involving loss of consciousness and bodily parts. The stress produced by the hospitalization and surgery results from loneliness, grief, abandonment, imprisonment, and the threat of physical injury, as well as intense needs for love, affection, and maternal protection. They suggest that the experience may even lead to grave psychological problems years after the child has been discharged. They found that by reducing the emotional tension of the mother through constructive interaction with a specially trained nurse, the emotional tension of the children was reduced, resulting in a more satisfactory hospital experience.

Davenport and Werry (1971), in replicating the work of Vernon et al. (1966) with 145 children, came to the conclusion that there was no evidence that a significant number of children undergoing hospitalization and surgery suffer a psychological upset in the post-hospitalization period. However, they did note that individual children may be severely traumatized by hospital procedures and many children may suffer upset during hospitalization. Furthermore, the study was conducted with

children whose hospitalization was brief, i. e., two days or less, whose degree of sickness was slight, the pain resultant from the surgery was minor, and anesthetic procedures were applied skillfully and compassionately.

Summary

The post-hospitalization behavior of children has been of concern to a number of researchers during the past thirty years. The factors most often cited as leading to emotional disturbance were separation from parents and age. Other factors studied were preoperative sedation, fantasies about anesthesia and surgery, prehospitalization personality, unfamiliarity of the hospital setting, fear of the operation and of needles, and preparation of the child for the hospital experience by the parents. It was found that the majority of the children undergoing surgery seemed to be able to master and integrate the experience without any serious emotional consequences. In some children, however, striking changes in behavior occurred, often accompanied by the appearance of symptoms which tended to persist for months and even years after the operation.

CHAPTER III

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

Introduction

At a three hundred bed general hospital in a Southwestern city of about 120,000 population, a policy was adopted whereby close family members were required to remain with all hospitalized children through the age of twelve both day and night. A second, smaller general hospital, located directly across the street from the larger one, soon adopted a similar policy. Accomodation and meals were provided for parents on a regular basis and both parents and children were treated with courtesy and respect by hospital personnel. Whenever possible, parents were encouraged to assist in providing bedside care for their children as well as to comfort and amuse them. The result of this policy was that parents were cooperative and separation anxiety was no longer a problem for their children. With the process of separation anxiety no longer operating, it was possible to study other causes of post-hospitalization emotional disturbance more easily.

Setting

A one hundred bed general hospital (Hospital A), owned by a private corporation, and a three hundred bed general hospital (Hospital B), a community hospital administered by a board of trustees appointed by the mayor, serve a Southwestern city of about 120,000 population as well as surrounding smaller communities. The physicians of the city were on the staffs of both hospitals and the socio-economic status of the patients using the facilities of both hospitals was the same. Only private patients were admitted to either hospital except on an emergency basis since the county hospital in a nearby larger city provided for indigents.

Population

The sample was chosen from the population of all children who had tonsillectomies at either of two general hospitals in a Southwestern city of 120,000 population. The convenience method of sampling, a nonprobability type of sampling, was used. Abdellah (1965) states that there is an element of randomness in the entry of such subjects into the study. All children between the ages of one year and twelve years who had a tonsillectomy in either of the two hospitals chosen for the study between December 15, 1975 and March 15, 1976 were offered participation in the study by the mailing of questionnaires to their parents. There was a fifty percent return of the questionnaires. Of those, six percent were discarded as not scorable.

Permission to Do Study

Permission to do the study was obtained from the administrators of Hospitals A and B and from the Chief of Surgery of Hospital A. Participation in the study was voluntary and permission was given by the participants by completing and returning the questionnaire.

Description of Tool

A questionnaire was used to assess changes in behavior after hospitalization for surgery of a group of twenty-eight children from one through twelve years of age. It was developed and validated by David Vernon, M.S., Jerome Schulman M.D., and Jeanne M. Foley, Ph.D. of Northwestern University Medical School, Chicago, Illinois. A copy of the questionnaire is included in Appendix A. It consisted of twenty-seven questions. For each item, the parent was asked to compare the child's typical behavior before hospitalization with his behavior after hospitalization. Five response alternatives were provided: (a) "much less than before"--scored 1, (b) "less than before" scored 2, (c) "same as before:--scored 3, (d) "more than before"--scored 4, and (e) "much more than before"--scored 5. The questions covered six factors: general anxiety and regression, separation anxiety, anxiety about sleep, eating disturbance, aggression toward authority, and apathy-withdrawal. The requested demographic data was age, sex, length of hospitalization, date of surgery, reason for prior hospitalization,

if any, and the relationship of the person who stayed with the child.

The questionnaire was previously used to study 387 children between 12 months and 12 years of age who had been in a Chicago hospital. It was sent to the parents of 800 children and 387 usable questionnaires were returned. The items were derived primarily from six studies. All symptoms mentioned in two or more of the studies were represented in the questionnaire. The findings of these preliminary studies, although not conclusive in all respects, suggested that the total score (derived by scoring the items as described above and summing over items) is both stable over a one month interval and valid. A comparison of questionnaire total scores with independent ratings of nondirective interviews with parents supported the validity of the questionnaire. Parents of children who had tonsillectomies were briefly interviewed by an experienced child psychiatrist about changes in the children's behavior during the week following hospitalization. In these interviews, questions about particular symptoms (i. e., those listed in the questionnaire) were avoided unless they were first mentioned by the parents. The subjects were 20 clinic patients between the ages of 2 and 10.5 years who returned for a routine examination approximately one week after hospitalization. The correlation between total scores and the rating of change in behavior following hospitalization was 0.47. ($0.05 > P > 0.02$ by two-tailed test). A clinical

psychologist's independent ratings of tape recordings of the interviews showed high agreement with the ratings of the psychiatrist ($r= 0.95$, $P<0.001$). A comparison of questionnaire scores for the three groups of children who underwent tonsillectomy (i. e., parent interviewed; parent not interviewed, but filled out the questionnaire in the hospital; and parent not interviewed and mailed the questionnaire) suggested that the interview and the fact of filling out the questionnaire in the hospital did not bias the questionnaire scores in any systematic fashion.

Methodology

Charts were reviewed by the medical records librarians to meet delimitations and determine addresses. Ten questionnaires were mailed six days after the discharge of the child from Hospital A. At the end of the three month period of study, only ten tonsillectomies had been performed on children between one and twelve years of age in Hospital A. Therefore, the administrator of Hospital B was approached and permission was requested to continue the study on the same basis at Hospital B for an additional three months. Permission was denied. However, after consultation with the hospital attorney, he did supply a list of fifty-one names and addresses of children of one through twelve years of age who had tonsillectomies in the hospital between December 15, 1975 and March 15, 1976. To be sure that the tonsillectomies had been done during the study

period, an additional question was added to the demographic data section of the questionnaire requesting this information. Two of the names on the list were discarded since they were personally known to the researcher. A total of forty-nine questionnaires were mailed approximately one month after the period of study. The cover letter--copy in Appendix B--explained the purpose of the study and assured anonymity.

Treatment of Data

Because of the number of questionnaires returned and the preponderance of "3" answers, meaning no change, a nonparametric test called the Fisher exact probability test was used in the analysis. It is used when the scores from two independent samples all fall into one or the other of two mutually exclusive classes. The answers to each question were divided into two classes. One class consisted of the responses "1", "2", "3" indicating no change or improvement. The other class combined "4" and "5" responses indicating adverse behavior changes. The answers to each question were then tested against five factors in the demographic data, each of which had been divided into two mutually exclusive groups. Sex was divided into male and female, age into five and under and six and above, who stayed in the hospital with the child during the day was divided into mother only or mother and father, who stayed in the hospital with the child during the night was divided into

mother only or mother and father, and whether hospitalized before was divided into yes or no. A total of one hundred thirty-five tests were done. The 0.05 level was chosen as the level of significance.

Summary

A questionnaire consisting of twenty-seven items, developed by Vernon et al. (1966), was sent to the parents of fifty-nine children who had tonsillectomies in either of two general hospitals in a Southwestern city of 120,000 population between December 15, 1975 and March 15, 1976. It was designed to assess changes in behavior after hospitalization for surgery. The parents of thirty children responded to the questionnaire and after discarding two questionnaires which could not be scored, the responses found in the remaining twenty-eight questionnaires were tested using the Fisher exact probability test to the 0.05 level of significance.

CHAPTER IV

ANALYSIS OF DATA

Introduction

In order to study post-hospitalization behavior in children, a questionnaire consisting of twenty-seven questions to be answered on a five point Likert scale was sent to the parents of all children who had a tonsillectomy at either of two general hospitals in a small Southwestern city between December 15, 1975 and March 15, 1976. A total of fifty-nine questionnaires were mailed and thirty questionnaires were returned, of which two were discarded because they answered the questions with "yes" and "no" rather than by circling a number as requested.

Description of Sample

The sample consisted of twenty-eight children between one and twelve years of age who had a tonsillectomy at either of the two hospitals between December 15, 1975 and March 15, 1976. Eight of the children had been hospitalized previously. Fifteen of the children were female and thirteen of the children were male. Sixteen of the children spent two days in the hospital, eleven children spent three days in the hospital, and one child spent four days in the hospital.

TABLE 1

Ages of Subjects

<u>Age</u>	<u>Frequency</u>	<u>Age</u>	<u>Frequency</u>
1	1	7	3
2	0	8	1
3	3	9	1
4	7	10	0
5	4	11	2
6	3	12	3
N = 28			

The median age was 6.14 years. Five children experienced hospitalization for surgery at Hospital A and twenty-three children experienced hospitalization for surgery at Hospital B. All children were accompanied by either the mother or the mother and father at all times throughout hospitalization except during the operation and the time spent in the recovery room. Parents were permitted to visit for short periods in the recovery room. As soon as they were awake from the anesthesia, the children were returned to their rooms.

Analysis of Data

A nonparametric technique called the Fisher exact probability test was used to analyze the data. The responses to the items in the questionnaire were divided into two classes. One class consisted of the responses "1", "2", or "3"

indicating no change or improvement. The other class combined the "4" and "5" responses indicating adverse behavior changes. The answers to each question were tested against five factors in the demographic data, each of which had been divided into two mutually exclusive groups, to the 0.05 level of significance. The five factors were: (1) sex, divided into male and female, (2) age, divided into five years and under and six years and over, (3) who stayed in the hospital with the child during the day, divided into mother only and mother and father, (4) who stayed in the hospital with the child during the night, divided into mother only and mother and father, and (5) whether the child had been hospitalized previously, divided into yes and no. A total of one hundred thirty-five tests were done. Table 2 shows the frequency of parent responses to questionnaire items by degree of change.

Using the Fisher exact probability test (see Table 3), it was determined that only one factor was statistically significant: the children who had been hospitalized previously were more likely to fuss about eating. Three trends were also determined: children whose mothers and fathers stayed with them in the hospital during the day were more likely to spend time trying to get and hold their parents' attention and were more likely to have difficulty making up their minds than children who were attended during the day only by their mothers. Children of five years of age or less were more likely to

TABLE 2
Frequency of Parent Responses to Questionnaire Items
By Degree of Change

Item	Response									
	1		2		3		4		5	
	No.	%	No.	%	No.	%	No.	%	No.	%
1. Does your child fuss about going to bed at night?	0	0	1	3.6	25	89.3	2	7.1	0	0
2. Does your child make a fuss about eating?	4	14.3	1	3.6	20	71.4	3	10.7	0	0
3. Does your child spend time sitting and doing nothing?	2	7.1	5	17.9	21	75.0	0	0	0	0
4. Does your child need a pacifier?	2	7.1	0	0	26	92.9	0	0	0	0
5. Does child seem afraid of leaving house with you?	2	7.1	0	0	24	88.9	1	3.6	0	0
6. Is your child uninterested in what goes on around him?	2	7.1	0	0	25	89.3	1	3.6	0	0
7. Does your child wet the bed at night?	4	14.3	1	3.6	23	82.1	0	0	0	0
8. Does your child bite his or her fingernails?	2	7.1	0	0	26	92.9	0	0	0	0

TABLE 2

Continued

Item	Response									
	1		2		3		4		5	
	No.	%	No.	%	No.	%	No.	%	No.	%
9. Does child get upset when left alone a few minutes?	2	7.1	1	3.6	24	85.7	0	0	1	3.6
10. Does your child need a lot of help doing things?	1	3.6	3	10.7	22	78.6	2	7.1	0	0
11. Is it difficult to get child interested in doing things?	1	3.6	2	7.1	25	89.3	0	0	0	0
12. Does child seem to avoid or be afraid of new things?	2	7.1	1	3.6	24	85.7	1	3.6	0	0
13. Does your child have difficulty making up his mind?	1	3.6	0	0	24	85.7	2	7.1	1	3.6
14. Does your child have temper tantrums?	0	0	1	3.6	23	82.1	4	14.3	0	0
15. Is it difficult to get your child to talk to you?	2	7.1	1	3.6	24	85.7	1	3.6	0	0
16. Does child seem to get upset when doctors or hospitals are mentioned?	3	16.7	1	3.6	21	75.0	1	3.6	2	7.1

TABLE 2

Continued

Item	Response									
	No.	%	No.	%	No.	%	No.	%	No.	%
17. Does your child follow you everywhere around house?	0	0	1	3.6	25	89.3	0	0	2	7.1
18. Does child spend time trying to get or hold attention?	0	0	2	7.1	23	82.1	2	7.1	1	3.6
19. Is your child afraid of the dark?	2	7.1	1	3.6	24	85.7	1	3.6	0	0
20. Does child have bad dreams or wake up and cry?	1	3.6	1	3.6	24	85.7	2	7.1	0	0
21. Is child irregular in bowel movements?	2	7.1	0	0	25	89.3	1	3.6	0	0
22. Does child have trouble getting to sleep at night?	1	3.6	1	3.6	24	85.7	1	3.6	1	3.6
23. Does child seem shy of or afraid around strangers?	2	7.1	3	10.7	22	78.6	0	0	1	3.6
24. Does your child have a poor appetite?	4	14.2	0	0	19	67.9	5	17.9	0	0
25. Does your child tend to disobey you?	0	0	1	3.6	24	85.7	1	3.6	2	7.1

TABLE 2

Continued

Item	Response									
	1		2		3		4		5	
	No.	%	No.	%	No.	%	No.	%	No.	%
26. Does child break toys or other objects?	0	0	2	7.1	24	85.7	1	3.6	1	3.6
27. Does your child suck thumb or fingers?	2	7.1	0	0	26	92.9	0	0	0	0

disobey their parents more than they had before the surgery than children who were six years of age or older.

The children who had been hospitalized previously were hospitalized for a variety of reasons. Three had experienced removal of the adenoids and myringotomy, two were hospitalized for "virus", one for "teeth", and one for premature birth. The majority of the children seemed to be experiencing difficulties associated with the ear, throat, and lungs and the tonsillectomies in their cases were further efforts to restore them to good health.

From the statistical tests performed, it would seem that the adverse psychological effects of hospitalization for surgery were minimal for children who were accompanied by their parents. The hypothesis which stated that adverse psychological effects of hospitalization for tonsillectomy other than those precipitated by separation anxiety occur in children of one through twelve years of age is not totally supported. However, it cannot be totally discarded since in looking at the frequency table (see Table 2), it can be seen that while the majority of parents reported improvement or no change, there were a few parents who reported that their children were having more difficulty than before (see Table 4). Since more parents reported improvement in their children's behavior, which can be explained by the fact that the tonsillectomy very likely improved their health and that well children tend to be

TABLE 3

Results of Fisher Exact Probability Tests

Ques. No.	Sex	Age	Who Stayed		Hospital Before
			Day	Night	
1.	0.2778	0.7222	0.5026	0.6111	0.5026
2.	0.4444	0.5556	0.3480	0.4701	0.0171*
3.	Proportions equal in all five categories.				
4.	Proportions equal in all five categories.				
5.	0.5556	0.4815	0.7407	0.7778	0.7407
6.	0.5357	0.4643	0.7143	0.7857	0.7143
7.	Proportions equal in all five categories.				
8.	Proportions equal in all five categories.				
9.	0.4643	0.5357	0.7143	0.7857	0.2857
10.	0.7222	0.7222	0.4974	0.3889	0.5026
11.	Proportions equal in all five categories.				
12.	0.5357	0.4643	0.7143	0.7857	0.8143
13.	0.5556	0.4444	0.1880**	0.5299	0.6520
14.	0.6444	0.6444	0.3179	0.6427	0.3179
15.	0.5357	0.4643	0.2857	0.7857	0.2857
16.	0.5556	0.4444	0.3480	0.4701	0.6520
17.	0.2063	0.2778	0.4974	0.3889	0.4974
18.	0.5556	0.4444	0.1880**	0.5299	0.6520
19.	0.5357	0.4643	0.7143	0.7857	0.7143
20.	0.2778	0.2778	0.5026	0.6111	0.5026
21.	0.5357	0.4643	0.2857	0.7857	0.2857
22.	0.7222	0.7222	0.5026	0.6111	0.4974

TABLE 3

Continued

Ques. No.	Sex	Age	Who Stayed		Hospital Before
			Day	Night	
23.	0.4643	0.5357	0.7143	0.7857	0.2857
24.	0.4278	0.5722	0.5521	0.7145	0.5521
25.	0.4444	0.1389**	0.6520	0.5299	0.6520
26.	0.7222	0.2778	0.4974	0.3889	0.5026
27.	Proportions equal in all categories.				

* statistically significant

** borderline significant

less dependent, less anxious, and have fewer eating and sleeping disturbances than sick children, the responses of the parents whose children were having more difficulty than before tended to be lost. Jessner et al. (1952) and Vernon et al. (1966) reported similar findings.

The parents of six children reported "more than before" and "much more than before" in answer to more than two questions. The ages of the children were 1, 5, 5, 6, 7, and 12. In the case of four of the children, their mothers stayed with them day and night. Both parents took turns staying with the fifth child both day and night, and in the case of the sixth child, both parents stayed during the day and the mother stayed with the child at night. Four of the children were female and two of them were male.

The questions covered six factors. For the six children whose parents reported more than two adverse answers, i. e., either "4", meaning "more than before" or "5", meaning "much more than before", the results were as follows:

TABLE 4

Responses Showing Adverse Reactions

<u>Factor</u>	<u>Responses</u>			
	No.	%	No.	%
Separation anxiety	2	28.6	5	71.4
Aggression toward authority	5	71.4	2	28.6
Eating disturbances	4	100.0	0	0.0
Apathy-withdrawal	3	75.0	1	25.0
Anxiety about sleep	1	50.0	1	50.0
General anxiety and regression	2	100.0	0	0.0

There was a mean of 4.66 adverse answers per child with a standard deviation of 5.020.

Summary

The results of this study tend to show that the majority of children undergoing tonsillectomy for hospitalization when accompanied by their parents seemed to be able to master and integrate the experience without any serious emotional consequences. In some children, however, striking changes in behavior occurred. Similar results were found in studies conducted by Jessner et al. (1952), Vernon et al. (1966), and Davenport and Werry (1970) as described in Chapter II.

CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Introduction

Since the work of Robertson (1958) and Bowlby (1961), it has been assumed that separation anxiety is the major cause of adverse behavior changes in children following hospitalization for surgery. Two hospitals, whose policy requires that all children through the age of twelve be accompanied by a parent at all times, provided the opportunity to determine whether brief hospitalization (two to four days) for relatively minor surgery (tonsillectomy) could cause adverse behavior in children during the post-hospitalization period when the factor of separation anxiety was eliminated.

Summary

A well-validated questionnaire developed by Vernon et al. (1966) consisting of twenty-seven items was sent to the parents of fifty-nine children of one through twelve years of age who had a tonsillectomy in either of two general hospitals in a Southwestern city of 120,000 population. The questions covered six factors: general anxiety and regression,

separation anxiety, anxiety about sleep, eating disturbance, aggression toward authority, and apathy-withdrawal. Five response alternatives were provided: (a) "much less than before"--scored 1; (b) "less than before"--scored 2; (c) "same as before"--scored 3; (d) "more than before"--scored 4; and (e) "much more than before"--scored 5. The requested demographic data was age, sex, length of hospitalization, date of operation, reason for prior hospitalization, if any, and the relationship of the person who stayed with the child during the day and during the night. A cover letter explained the purpose of the study and assured anonymity. A stamped, addressed envelope was enclosed for returning the questionnaire. Thirty questionnaires were returned, of which two were discarded because they answered the questions using "yes" or "no" rather than circling the response alternatives provided. A nonparametric test called the Fisher exact probability test was used to test the data to the .05 level of significance. The responses to the questions were divided into two groups: one class consisted of the responses "1", "2", or "3" indicating improvement or no change. The other class combined "4" and "5" indicating adverse behavior changes. The answers to each question were tested against five factors in the demographic data, each of which had been divided into two mutually exclusive groups. The five factors were: sex, divided into male and female; age, divided into five years and below and

six years and above; who stayed in the hospital with the child during the day, divided into mother only and father and mother; who stayed in the hospital with the child at night, divided into mother only and father and mother; and whether the child had been hospitalized previously, divided into yes or no. A total of one hundred, thirty-five tests were done. It was determined that only one factor was statistically significant: the children who had been hospitalized previously were more likely to fuss about eating. Three trends were also discovered: children whose mother and father both stayed with them during the day were more likely to have difficulty making up their minds and were more likely to spend time trying to get or hold their parents' attention than children who were attended during the day only by their mothers, and children who were five years old or younger were more likely to disobey their parents than the children who were six years old or older. There were six children whose parents gave more than two adverse behavior responses. For these children, there was a mean of 4.66 adverse answers per child with a standard deviation of 5.020.

Conclusions

The children who had been hospitalized previously were hospitalized for a variety of reasons. However, the majority of the children seemed to be experiencing difficulties associated with the ear, throat, and lungs and the tonsillectomies in their cases were further efforts to restore them to good

health. It could be expected that these children would be fussy eaters before surgery and less fussy eaters afterwards. Perhaps, the eating disturbance was an expression of anger towards the parents for again subjecting them to hospitalization or perhaps the removal of the tonsils did not have the desired effect on the children's health. It is also possible that the children enjoyed the extra attention given to them during their time of ill health, especially at meal time, and continued or increased their fussy eating habits in order to perpetuate it. A fourth possibility is that the parents, having expected the tonsillectomy to restore their children to good health, perceived their continued eating difficulties as becoming more severe.

When both parents stayed with the child during the day, it is possible that the child was not the center of attention at all times. This can lead to greater efforts by the child to get and hold his or her parents' attention. It can also lead to difficulty for the child in making up his or her mind as an attention-getting device.

In explaining the reasons for a trend toward decreased obedience in children who were five years of age or younger, it is important to remember that young children tend to perceive their parents as very powerful figures. It is possible that the experience of hospitalization for surgery caused them to perceive their parents as less powerful than the doctors

and nurses in the hospital and therefore strict obedience to their demands was no longer essential. On the other hand, children frequently test their parents to see if they will really enforce their demands for obedience, and since this testing becomes more frequent and intensive during the ages of two and four years, it is possible that the children whose parents reported less or much less obedience than before were simply entering another stage of normal development. A third reason for decreased obedience may be that parents often do not enforce their demands when a child is ill, and children can easily become accustomed to having their own way during these times. Older children understand that it is because of illness, but the younger children do not realize this. When they regain good health, their habits of obedience are not as strong or automatic as they were before the illness and parents often find it difficult to regain control of their behavior.

Many parents reported improvement in their children's behavior. This can be explained by the fact that the tonsillectomy very likely improved their health and that well children tend to be less dependent, less anxious, and have fewer eating and sleeping disturbances than sick children. It is more difficult, however, to pinpoint a reason for the behavior of the six children whose parents reported "more than before" or "much more than before" in answer to more than two questions. Many of these parents reported that their children

spent more time following them around the house and trying to get and hold their attention than before the hospitalization for surgery. There was more fear of strangers, more sleeping and eating difficulty and more disobedience and temper tantrums. It seems as if the children lost confidence in the willingness and / or ability of their parents to protect them. They may have perceived them as powerless to prevent the strangers in the hospital from hurting them. Because of this experience, their basic sense of security has been damaged and it is likely that their personality development has been affected. These cases tend to coincide with the findings reported in the literature which were attributed in large part to separation anxiety. Apparently, even with parents accompanying their children in the hospital at all times, a number of children--in this case, twenty-one percent--evidence some adverse changes in behavior following even brief hospitalization for relatively minor surgery.

Implications

It has been shown that while the majority of children are able to master and integrate the experience of hospitalization for surgery, some children are not able to do so, even when accompanied by their parents throughout the experience. Many fewer tonsillectomies are being done today than in the past, but those children whose health requires one should have an alternative in the way it is accomplished. The new day

surgical centers seem to be an excellent way of dealing with the problem. Children arrive at the center, usually located within a hospital, in the morning, have their surgery, wake up from anesthesia with their mothers at the bedside, and are usually sent home late in the afternoon to their own familiar beds. It is all over so fast that the time spent in strange surroundings is minimal, the mother can arrange to be there the whole time without having to worry about other family or employment obligations, and the emotional effects on the child would not be nearly as great as when he has to spend one or two days in the hospital after surgery. Some surgeons, for reasons of safety, prefer to keep the child in the hospital overnight after surgery. Even this is preferable to the usual two or three day hospital stay, where the child is brought to the hospital the day before surgery and remains there until one or two days following surgery.

Since there is a possibility that the child's emotional development can be damaged by an experience of hospitalization for surgery, it should be a matter of policy with all surgeons that no child should have surgery of any kind unless it is a matter of saving his life or greatly improving the quality of his health. In the past, tonsillectomy was such a common operation for children that few escaped it. Now with the use of more effective medications, it is no longer necessary in most cases.

There are several implications in this study which are useful for nursing. The nurse should recognize that a child's greatest need in times of stress is for his mother. In the hospital, she should do everything possible to make the mother comfortable, allay her anxiety by reassuring her about what is normal, and letting her know promptly that the doctor has been notified, should anything abnormal occur. She should also encourage the mother to do for the child the things that she would normally do at home in case of illness such as bathing and feeding him when necessary and giving him emotional support. The nurse should meet the mother's physical needs by arranging for her meals to be delivered to the child's room and providing extra blankets and towels when needed. Most of all, the mother and child should be treated with courtesy and respect at all times. Frequently, the father will help to care for his child while he is in the hospital and he, of course, should be treated in the same manner.

Cooperation with and consideration for parents should be taught in the nursing schools. They should be considered as members of the nursing team in the case of their child rather than as outsiders or adversaries. Parental attendance of hospitalized children has gained widespread acceptance in many parts of the country and is a part of the milieu in which the student will function both as an undergraduate and as a graduate nurse.

Recommendations

This study was limited to a small number of children who were members of the more affluent socio-economic groups. It is recommended that the study be replicated using a much larger variety of socio-economic groups. Further attention should be paid to whether the effects of paternal attendance or attendance by both parents are different from the effects of maternal attendance of the child. Another area which should be studied further is the relationship between previous hospitalization and feeding disturbances.

It is evident from this study and from the literature that a small number of children are not able to master and integrate the experience of hospitalization for surgery even though the majority of children are able to do so. Further study is needed to determine why this occurs. Some areas which are recommended for investigation are: factors in the child's background or upbringing which make him more prone to psychic trauma, including genetic factors; the importance of the relationship between the parent and child in contributing toward or preventing psychic trauma during times of stress; and the contribution of parental anxiety to the anxiety of the child. If it were possible to detect these children before the hospitalization for surgery occurs rather than afterwards when the damage is already done, then progress will have been made toward the prevention of psychic trauma to children.

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APPENDIX A

Please answer the following questions:

1. Age of your child _____
2. Sex _____
3. Date of your child's operation _____
4. How long was your child in the hospital? _____
5. Has your child been hospitalized before? _____
6. If so, why? _____
7. Who stayed with your child in the hospital?
 - a. In the daytime _____
 - b. At night _____

After each of the following questions you will find a row of numbers whose meaning is given below. All you have to do is to draw a ring around the number that best answers the question.

- (1) Much less than before.
- (2) Less than before.
- (3) Same as before.
- (4) More than before.
- (5) Much more than before.

1. Does your child make a fuss about going to bed at night? 1 2 3 4 5
2. Does your child make a fuss about eating? 1 2 3 4 5
3. Does your child spend time just sitting or lying and doing nothing? 1 2 3 4 5

4. Does your child need a pacifier? 1 2 3 4 5
5. Does your child seem to be afraid of leaving the house
with you? 1 2 3 4 5
6. Is your child uninterested in what goes on around him
(or her)? 1 2 3 4 5
7. Does your child wet the bed at night? 1 2 3 4 5
8. Does your child bite his or her fingernails? 1 2 3 4 5
9. Does your child get upset when you leave him or her
alone for a few minutes? 1 2 3 4 5
10. Does your child need a lot of help doing things? 1 2 3 4 5
11. Is it difficult to get your child interested in doing
things (like playing games, with toys and so on)?
1 2 3 4 5
12. Does your child seem to avoid or be afraid of new
things? 1 2 3 4 5
13. Does your child have difficulty making up his or
her mind? 1 2 3 4 5
14. Does your child have temper tantrums? 1 2 3 4 5
15. Is it difficult to get your child to talk to you?
1 2 3 4 5
16. Does your child seem to get upset when someone
mentions doctors or hospitals? 1 2 3 4 5
17. Does your child follow you everywhere around the
house? 1 2 3 4 5
18. Does your child spend time trying to get or hold
your attention? 1 2 3 4 5

19. Is your child afraid of the dark? 1 2 3 4 5
20. Does your child have bad dreams at night or wake up
and cry? 1 2 3 4 5
21. Is your child irregular in his or her bowel movements?
1 2 3 4 5
22. Does your child have trouble getting to sleep at
night? 1 2 3 4 5
23. Does your child seem to be shy or afraid around
strangers? 1 2 3 4 5
24. Does your child have a poor appetite? 1 2 3 4 5
25. Does your child tend to disobey you? 1 2 3 4 5
26. Does your child break toys or other objects? 1 2 3 4 5
27. Does your child suck his or her fingers or thumbs?
1 2 3 4 5

As soon as you have completed this questionnaire,
please return it to me in the enclosed envelope to
Mrs. Louise Blumberg, 2600 Chinquapin Oak, Arlington,
Texas 76012.